Model 4602 Accelerometer

Advanced Temp Compensation
Gas Damped, DC Response
Amplified, Signal Conditioned
MEMS Accelerometer

The Model 4602 is designed for both static and dynamic measurements in critical and demanding applications. The accelerometers are available in ranges from ±2 to ±500g and offers outstanding thermal performance. The model 4602 is temperature compensated from -55°C to +125°C. The accelerometers incorporate a gas damped MEMS sensing element with integral over-range stops for high-g shock protection.

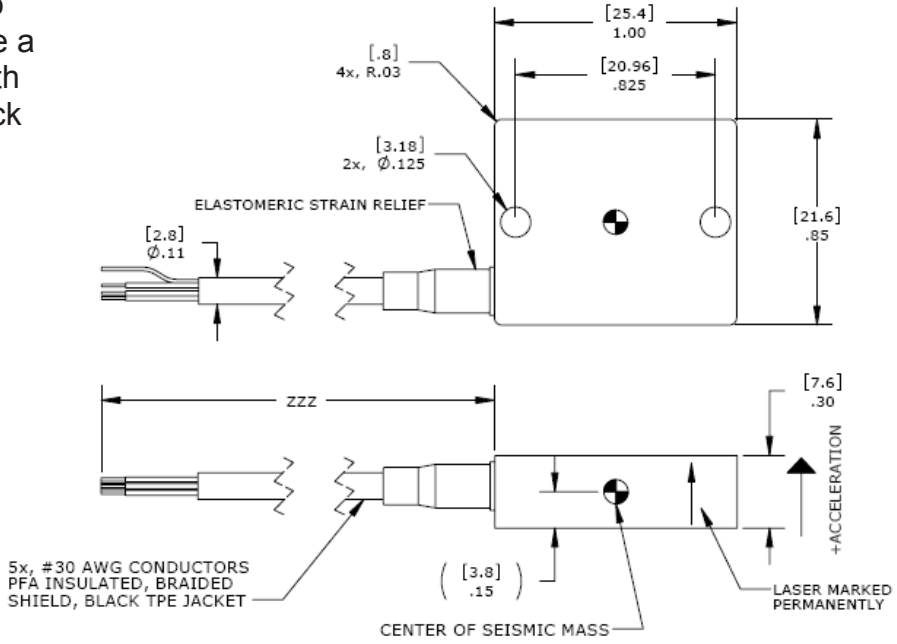
FEATURES

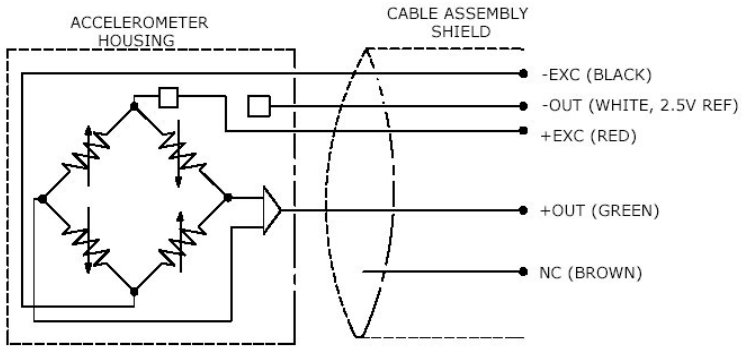
- ±2g to ±500g Dynamic Range
- Amplified Output
- Low Power Consumption
- Gas Damping
- Integral Strain Relief
- DC, Low Frequency Response
- 8 to 36Vdc Excitation Voltage

APPLICATIONS

- Flight Testing
- Flutter and Nacelle Vibrations
- Structural Testing
- Test and Instrumentation
- Performance Testing
- Transportation

dimensions





Model 4602 Accelerometer

performance specifications

All values are typical at +24°C, 100Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters								
DYNAMIC								**Notes**
Range (g)	±2	±10	±30	±50	±100	±200	±500	
Sensitivity (mV/g)	1000	200	67	40	20	10	4	
Frequency Response (Hz)	0-200	0-400	0-800	0-1000	0-1500	0-1500	0-1500	±5% [1]
Frequency Response (Hz)	0-400	0-600	0-1100	0-1600	0-2000	0-2000	0-2000	±1dB
Natural Frequency (Hz)	700	1000	1500	4000	6000	8000	10000	
Non-Linearity (%FSO)	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<2	<2	<2	<2	<2	<2	<2	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.6	0.5	
Shock Limit (g)	10000	10000	10000	10000	10000	10000	10000	
Residual Noise (µV RMS)	500	300	350	400	400	400	400	Passband
Spectral Noise (µg/√Hz)	35	75	197	316	516	1033	2582	Passband

ELECTRICAL		
Zero Acceleration Output (mV)	±50	Differential
Excitation Voltage (Vdc)	8 to 36	
Excitation Current (mA)	<5	
Bias Voltage (Vdc)	2.5	
Output Resistance (Ω)	<100	
Insulation Resistance (MΩ)	>100	@100Vdc
Turn On Time (msec)	<100	
Ground Isolation	Isolated from Mounting Surface	
ENVIRONMENTAL		
Thermal Zero Shift (%FSO/°C)	±0.008	Typical
Thermal Sensitivity Shift (%/°C)	±0.010	Typical
Operating Temperature (°C)	-55 to 125	
Compensated Temperature (°C)	-55 to 125 for Model 4602	
Storage Temperature (°C)	-55 to 125	
PHYSICAL		
Case Material	Anodized Aluminum	
Cable	5x #30 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket	
Weight (grams)	8	
Mounting	2x #4 or M3 Screws	
Mounting Torque	6 lb-in (0.7 N-m)	

Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit [1]
Supplied accessories:	AC-A02285	2x #4-40 (7/16 length) Socket Head Cap Screw and Washer
Optional accessories:	AC-D02669	Triaxial Mounting Block
	101	Three Channel DC Signal Conditioner Amplifier

ordering info

PART NUMBERING Model Number+Range+Cable Length

4602-GGG-ZZZ-C
I I_____Cable (060 is 60 inches)
I_____Range (010 is 10g)

Example: 4602-010-060-C
Model 4602, 10g, 060” (5ft) Cable

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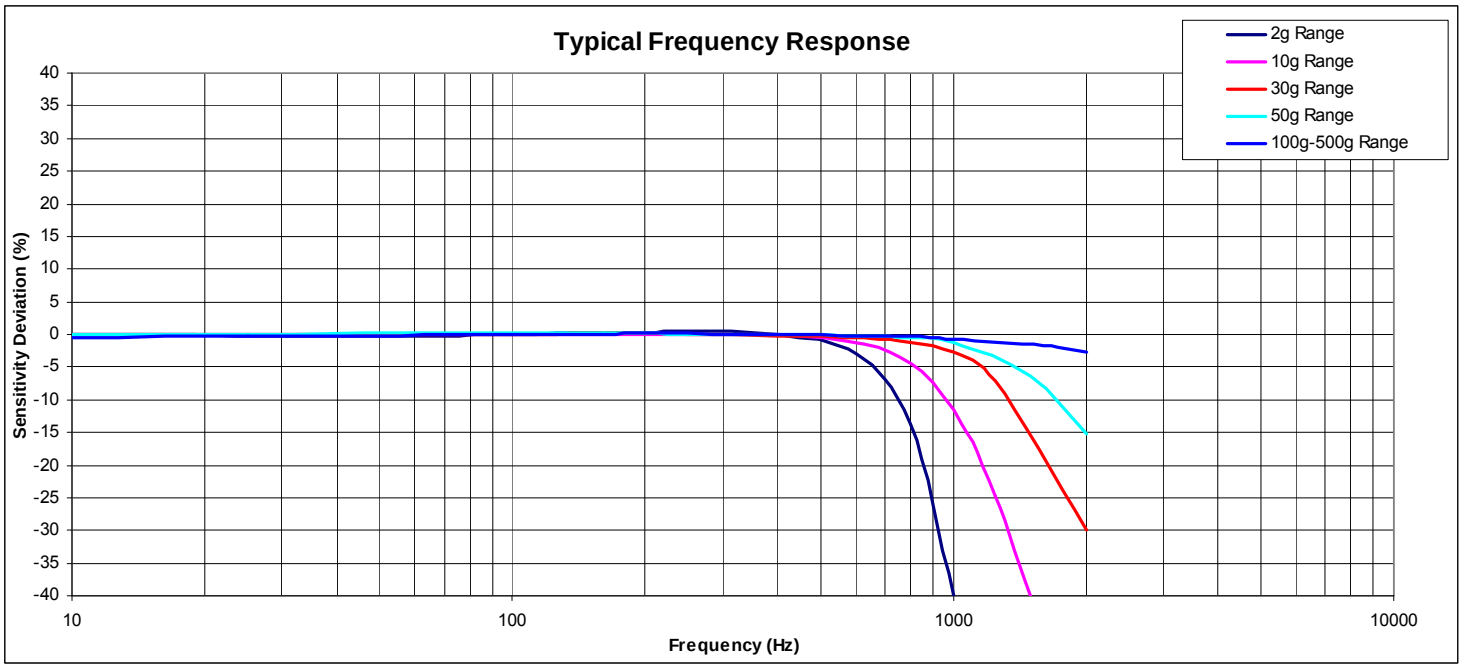
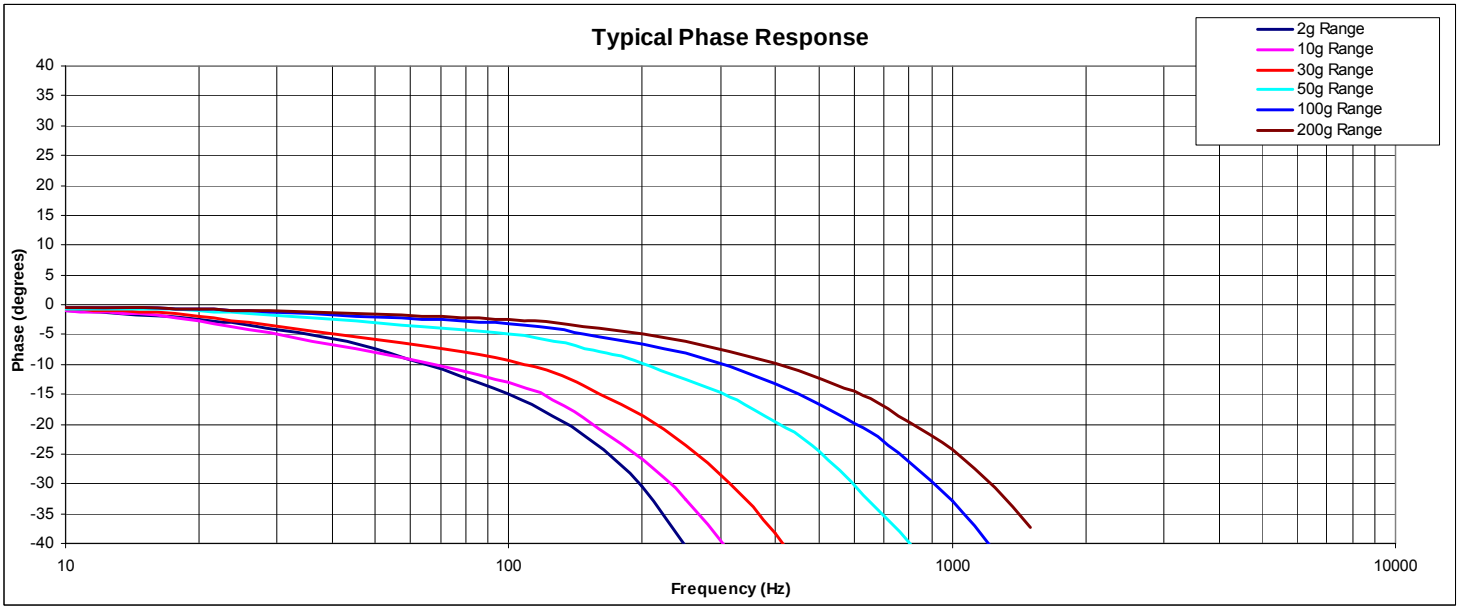
performance specifications





联系方式

深圳市亿为测控电子有限公司
Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

广东省深圳市南山区创业路怡海广场东座2407 邮编：518000
电话：+86 755 2641 9890　　传真：+86 755 2641 9680
电子邮箱：sales@bill-well.com